

BOE's Proposed Compliance Plan to Mitigate the Potential Risks of Releases and Overflows from the Biodigesters

1. DESCRIPTION OF CONTROL MEASURES

1.1 Preventive Measures

The following preventive measures have or will be implemented at the facility to control or prevent the release of material from the biodigesters:

| Area | Material/Equipment | Control Measures |
|----------------------|---|--|
| Loading Dock | Sump/Pump | Material capture for processing back into facility |
| South Drainage | Silt Fencing/Hay Bales | Slows the flow of storm water off property/allows for solids settling/capture |
| Parking Lot Drainage | Drainage Tile/Silt Fencing/Hay Bales | Slows the flow of storm water off property/allows for solids settling/capture |
| North Drainage | Silt fencing/Hay Bales | Slows the flow of storm water off property/allows for solids settling/capture |
| AD1/AD2 | Process monitoring specifically level sensors | The AD1 and AD2 operation are tracked through process monitoring to track and trend levels and detection of process upsets. * |
| AD1/AD2 | Lab Analysis for process trending ** | Specific analysis for tracking and trending digester health is analyzed at the facility for the detection of process upsets. * |

*If a process upset is detected then immediate action shall be taken to minimize the upset including but not limited to improved controls to reduce and divert feedstock, increased or decreased flow rate through the digester system.

** The following table lists BOE's operational guidelines:

| <u>AD Operational Parameter</u> | <u>Application of the parameter</u> | <u>AD General Operations (suggested)</u> |
|---------------------------------|--|--|
| Operational Capacity | Calculated from the functional capacity of the AD system based on targeted HRT | Loading to the AD should be completed in accordance with the calculated loading capacity |

| | | |
|--|--|---|
| Feed Stock Evaluation | Corporate customer and feedstock approval process. | Feed stocks need to be reviewed and approved based on their compatibility for treatment and the need to be stabilized prior to injection to AD. |
| Operational Temperature | Temperature required for AD operation | Range 93° - 104° F |
| Operational Mixing AD1-5 Mixers AD2-5 Mixers | Mixing of AD sludge to aid in the plug flow system | Continuous mixing of AD system |
| Alkalinity | Buffering capacity of the AD system | Alkalinity is measured multiple times per week. Corrective actions taken based on AD system requirement |
| Volatile Acids | Acid intermediate step in AD process contributing to acidification | Volatile Acid is measured multiple times per week for comparison with Alkalinity, and corrective action based upon AD performance |

* Concentrated feed stocks will need to be managed individually per the approval process.

1.2 Best Management Practices (BMPs)

The following areas have the potential to affect storm water quality and therefore the identified BMPs shall be carried out to protect storm water quality:

- Receiving Bay-Trucks shall be washed off prior to departure to remove any residual material
- Solids Load Out-Trucks shall be washed off if necessary, to remove any residual material
- Pavement (tracking material)- Staff shall use the pavement squeegee and sweeper as often as necessary to push tracking material back into the receiving bay, to ensure the tracking material does not leave property and/or contaminate facility runoff

Delivered goods shall be stored inside or inside a trailer if possible, to prevent any spilling or rupturing in the parking lot.

All loaded trailers shall be parked onsite whenever possible to prevent any spill or release on public right of way and/or the truck parking lot. If a trailer is found to have a leak or release it will be immediately parked in the loading dock to contain the material in the loading dock until it can be remediated and put into the facility or disposed of alternatively.

2. **BOE'S PROPOSED COMPLIANCE PLAN TO RESPOND TO SPILLS**

Facility staff are tasked with making sure received/package goods are stored/staged inside as much as possible and to make sure that all liquid materials are always stored/staged inside. All dry goods need to be staged in the area by the loading dock and as part of the daily site walk through a review of this storage/staging area needs to be completed to ensure there is no potential for the stored/staged material to affect storm water quality. Additionally, the walk through needs to include a check of the secondary containment berms for AD1 and AD2 to make sure that there are no structural issues and that any residual material is clean out of them as necessary.

2.1 Spill Prevention & Response Procedures:

All the drains inside the facility go to the GFT for blending and treatment. The loading dock manhole is pumped into the GFT for blending and treatment prior to discharge. Facility runoff will travel one of three ways:

- From the parking lot/loading dock area/ northwest side of property to the drainage swale and out outfall #2,
- From the southeast AD1 corner towards the northeast drainage swale and out outfall #2
- From the southeast AD1 corner towards the west side of AD2 to outfall #1

The equipment and procedures necessary for the containment and cleanup of spills has also been identified. The facility has a stormwater drain cover mat, drain pipe plugs and absorbent material. Employees have been made aware of the proper procedures and have been trained on spill containment and clean up.

In the event of a digester release immediate action shall be taken to ensure that the released material is contained in one of the secondary earthen berms, strategically placed at overflow locations around both AD1 and AD2.

- In the event that the spill or release surges/overflows the berm the regrading of the elevation at the facility ensures that all material will stay on property and either flow northeast to the drainage swale (outfall #2) or southwest towards outfall #1.
 - The northeast drainage swale to outfall #1 needs to be bermed to prevent material from discharging off property and the 4" drainage tile from the parking lot to outfall #1 will need to be plugged in the stormwater drainage riser.
 - The southwest drainage swale to outfall #2 needs to be bermed to prevent material from discharging off property
- Refer to Appendix #1 for a Spill Response Form in the event a spill occurs at the facility.

Once identified, a spill shall be contained and cleaned up according to the safety guidelines in the SDS for remediation and disposal. If the spill is large enough to require site containment and/or third-party assistance the Storm Water Pollution Prevention Team shall devise a plan for

the remediation and clean up which will include notification to the appropriate agencies and the delegation of responsibilities for testing, reporting and the development of a sustainable action plan to address and eliminate the release/spill from occurring again.

3. **BOE'S PROPOSED TRAINING PROGRAM AND MONITORING ON SWPPP**

3.1 Employee Training:

Employee training shall be conducted at least annually to train all employees of the various SWPPP goals, SWPPP components and responsibilities.

3.1.1 Pertaining to Monitoring & Inspection

Each inspection report shall document the locations where the samples are collected, any issues in or around the sampling location, the inspector's summary and the inspector initials. Refer to Appendix #3 for a copy of the Industrial Storm Water Storm Event Monitoring Report.

3.1.2 Quarterly Benchmark Monitoring:

The following benchmarks are required for the monitoring that is to be completed on the sampling events:

| Parameter | Benchmark Monitoring Concentration |
|------------------------------|------------------------------------|
| Total Suspended Solids (TSS) | 100 mg/L |
| Chemical Oxygen Demand (COD) | 120 mg/L |
| Ammonia | 10 mg/L |

*If the results from a quarterly sampling event are over the benchmark monitoring concentrations an investigation and summary into the cause will be put together and attached to the quarterly report.

**If the average of 4 quarterly sampling events are above any benchmark monitoring concentration then a corrective action report must be completed and submitted to the DEQ.

*** If there are less than 4 benchmark samples, but the results are such that an exceedance of the quarterly average is mathematically certain (if the sum of the quarterly sample results to date are more than 4 times the benchmark level) than this is considered a benchmark exceedance and a corrective action plan must be completed and submitted to DEQ.

3.1.3 Routine Facility:

Routine inspections shall be conducted at the facility, inspections of areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the effluent limits contained in the permit. The routine inspections shall be conducted at least quarterly when the facility is in operation.

Documentation shall be maintained on-site with a copy of the SWPPP. Refer to Appendix #4 for a copy of the Routine Facility Inspection form.

3.1.4 Quarterly Visual Assessment of Stormwater Discharges:

Storm water samples from each outfall shall be collected once a quarter for the entire permit term and a visual assessment of each location conducted. Samples need to be collected within the first 30-minutes of an actual discharge from a storm event and on storm event discharges that occur at least 72-hours (3-days) from the previous discharge. In the event of a snowmelt, the samples shall be taken during a period with a measurable discharge from the site.

The samples shall be visually inspected for color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen and other obvious indicators of stormwater pollution. These samples shall be submitted to the lab or benchmark analysis. Documentation shall be maintained on-site with a copy of the SWPPP. Refer to Appendix #5 for a copy of the Quarterly Visual Assessment form.

3.1.5 Annual Comprehensive Site Inspections:

An annual inspection needs to be completed to evaluate the effectiveness of the SWPPP. The inspection shall cover all areas of the facility affected by the requirements in the permit, including the areas identified in the SWPPP as potential pollutant sources where industrial materials or activities are exposed to stormwater, any areas where control measures are used to comply with the effluent limits contained in the permit, and areas where spills and leaks have occurred in the past 3-years. The documentation shall include the following:

- Inspection date and time;
- Name(s), title(s) and signature(s) of inspector(s);
- Findings from the examination of areas of the facility;
- Observations relating to the implementation of the control measures including:
 - Previously unidentified discharges from the site
 - Previously unidentified pollutants in existing discharges
 - Evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of an around the outfall, including flow dissipation measures to prevent scouring
 - Additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;

- Any incidents of noncompliance observed or a certification stating the facility is in compliance with the permit;
- Certification Statement signed and certified in accordance with the permit.

Documentation shall be maintained on-site with a copy of the SWPPP. Refer to Appendix #5 for a copy of the Annual Comprehensive Site Inspection form.